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Title **Trends in Adaptive Array Processing**

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Abstract

In past five decades, enormous progress has been made in the area of adaptive array processing. Increased computational power has resulted in many practical applications of optimum algorithms. The present report deals with many facets of array signal processing and adaptive beam forming. It provides a comprehensive description of various beam-forming schemes, adaptive algorithms to adjust the required weighting on antenna elements, direction-of-arrival estimation methods, including their performance comparison. The effects of various types of errors on the performance of an array system are illustrated along with their remedial measures. Since array signal processing has widespread applications, the study is carried out across various disciplines.